

From: [GAINER Tom](#)
To: [ANDERSON Jim M](#); [Eric Blischke/R10/USEPA/US@EPA](#)
Subject: RE: LWG's 10/07 "Treatability Study Lit Survey"
Date: 01/30/2008 09:36 AM

Eric-

Upon reading Section 8 again, the text on page 34 describes how technologies assessed as "unlikely" are not absolutely ruled out, but may be further evaluated in "additional studies related to the RI/FS." I'm OK with putting chem. Ox and sorbent clay stabilization on a second tier, but I need to become more familiar with what additional studies are being contemplated that would shed light on these other technologies. These technologies are widely used in the wastewater treatment field, and while they have limitations, it seems that they could be part of an ex-situ treatment train.

Thanks-
Tom

-----Original Message-----

From: ANDERSON Jim M
Sent: Wednesday, January 30, 2008 8:18 AM
To: GAINER Tom
Subject: FW: LWG's 10/07 "Treatability Study Lit Survey"

Tom,
Can you help me out with Eric's request?
Jim

-----Original Message-----

From: Blischke.Eric@epamail.epa.gov
[mailto:Blischke.Eric@epamail.epa.gov]
Sent: Tuesday, January 29, 2008 5:58 PM
To: ANDERSON Jim M
Subject: Re: LWG's 10/07 "Treatability Study Lit Survey"

Jim, I am pulling together comments on the treatability study literature review. Can you provide some support for your comment 4 below regarding chemox and sorbent clay stabilization/solidification. For example it would be good to cite where these technologies have been successfully applied or otherwise why they should be carried forward.

Thanks, Eric

"ANDERSON Jim M"
<ANDERSON.Jim@deq.state.or.us>

12/20/2007 03:02
PM

To
Chip Humphrey/R10/USEPA/US@EPA,
Eric Blischke/R10/USEPA/US@EPA
cc
"GAINER Tom"
<GAINER.Tom@deq.state.or.us>,
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Subject
LWG's 10/07 "Treatability Study
Lit Survey"

Chip & Eric,

Here are DEQ's comments on the LWG's 10/20/07 draft "Treatability Study Literature Survey Tech Memo". General Comments

1) Please print documents double-sided.
2) The LWG needs to consider the concept of net risk reduction in the Portland Harbor project. In their 2005 Interim Draft "Contaminated Sediment Remediation Guidance for Hazardous Waste Sites", EPA describes "net risk reduction" as a method to ensure that all positive & negative aspects of each sediment management approach are considered at contaminated sediment sites (p.7-13). Net risk reduction considers not only the overall risk reduction offered by different contemplated alternative, but also risks introduced by implementing the alternatives. The LWG should be encouraged to develop & present to EPA information comparing net risk reduction between alternatives. If a revision of the LWG's Treatability Lit Survey is called for, then the LWG should include a short description of the concept of net risk reduction.

Specific Comments

1) Beneficial Use Evaluation (Section 7.2)- The referenced text states that beneficial use evaluation of treated & untreated sediment options are not part of this tech memo & will be considered in the FS on a case-by-case basis. This may be fair, but beneficial re-use of treated

dredge sediment should be considered in cost estimates for the general evaluation of technologies. Furthermore, it would be helpful to include an initial market survey for potential "beneficial uses" of treated and untreated excavated sediment (e.g., any chance of using sediment in building or road-bed materials in the Portland area, etc.).

2) Upland Values for Screening (Section 7.2.1)- We generally agree with the LWG's strategy of defining upland screening values for dredge sediment, but have several concerns. 1st, the only screening values the LWG considered were those based on protection of human health. If there is a current or reasonably likely future chance of terrestrial ecological receptors being exposed to the dredge sediment placed in an upland facility, then toxicity eco screening level values would need to be considered. DEQ considers soil to terrestrial eco receptor to be a potentially complete & possibly important exposure pathway (mainly thru ingestion or diet), however, we do not currently have bioaccumulation screening values for this pathway. Placing a strongly bioaccumulative contaminant in an upland facility may require consideration of this pathway.

2nd, The referenced text states the upland values for screening were selected from DEQ's "most restrictive ODEQ residential upland soil cleanup risk-based concentrations" (p.30) that are based on direct contact with soil. DEQ's Risk-Based Decision Making (RBDM) Guidance considers several human health exposure pathways, & generally, the direct contact with soil pathway lists the most conservative screening value. However, for naphthalene, the most conservative soil screening value is for the leaching to groundwater pathway. This soil leaching to groundwater pathway lists a screening level value of 3.8mg/kg. The LWG used the direct contact screening level of 34mg/kg in their tech memo.

3rd, the document describes additional consideration for PCB-bearing sediments, including DEQ's PCB Generic Remedy guidance. The LWG's tech memo cites upland generic-remedy soil values for PCBs of 1.2mg/kg (residential) & 7.5mg/kg (industrial). In fairness, the LWG's tech memo clearly states that DEQ guidance is not directly applicable to the upland disposal of dredge sediment, & that the generic-remedy soil values are presented to simply provide insight. However, the LWG's tech memo fails to mention that DEQ's PCB Generic Remedy guidance states these generic-remedy soil values apply only where PCBs are the main risk driver, not in a mixture of other risk-driving hazardous substances.

4) Ex-situ Chemox (Section 8.0 & Table 1)- It appears premature to eliminate ex-situ chemox and sorbent clay stabilization/solidification treatment at this time.

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